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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/640,089
Filing Date: August 13, 2003
Appellant(s): WHITE, DAWN

Mr. John G. Posa (37,424)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/23/2007 appealing from the Office action mailed 08/23/2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-4, 10-15, 22-31, 34-37, 39 and 43 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Dourmanidis et al (US Patent 6,450,393).

Dourmanidis discloses a method and apparatus for producing a three-dimensional part. As shown in the figures, cutting device 40 cuts individual planar sheets 32 from materials supplied from feed system 66. These planar sheets are positioned on apparatus 30 comprising table 36, base 50, Cartesian table 52 and anvil

54. Ultrasonic welder 38 then welds the individual sheets 32 together to form the three-dimensional part in the manner claimed by the applicant. See column 5, line 14 through column 6, line 43.

Control unit 46 may be a computer and controls the operation of the ultrasonic welder. This control unit requires input of the geometry of the part and may include a CAD software package (see col. 8, line 11 through col. 9, line 3). This control unit also controls the vertical pressure, vibration amplitude and welding time. Thus, Dourmanidis controls the energy delivered to the bond zone in the manner claimed by the applicant. See col. 9, line 57 through col. 10, line 31.

At col. 9, lines 51-56, Dourmanidis discloses that melting of the materials does not take place. The temperature rise of the materials is a function of the process settings and its maximum range is between 35% and 50% of the material melting temperature. Thus, Dourmanidis maintains uniform thermal conditions in the bond zone in the manner claimed by the applicant.

Regarding claim 1, it is noted that applicant has employed the phrase "alone or in combination". Based on this phrase, it is the examiner's position that a references that teaches any one or more of applicant's claimed steps, anticipates applicant's claim. Therefore since the reference of Dourmanidis described above teaches maintaining consistent energy delivery to the bond zone as well as maintaining uniform thermal conditions in the bond zone, it is the examiner's position that that Dourmanidis teaches applicant's claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5-9, 16-21, 32-33, 38 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dourmanidis as described above in paragraph 2.

Regarding claims 5-9 and 40-42, without the disclosure of unexpected results, it is the examiner's position that the look-up table and various adaptive control methods are well known and conventional in the art and would have been obvious to employ in the method of Dourmanidis described above in order to provide more precise control during the bonding process.

Regarding claims 16-21, the grid/map, height-to-width ratio and appropriate process parameters are conventional control features that are within the purview of one having ordinary skill in the art. Therefore, it would have been obvious to one having ordinary skill in the art to employ such control features in the method of Dourmanidis described above in order to facilitate manufacture of the materials.

Regarding claims 32-33 and 38, it is the examiner's position that the various heat sources (i.e. air, hot water, oil, steam, channels, sonotrode) are within the purview of one having ordinary skill in the art and would have been obvious to employ in the method of Dourmanidis described above in order to facilitate heating of the materials.

(10) Response to Argument

Applicant argues the reference of Dourmanidis does not maintain consistent energy delivered to the bond zone, but merely observes to temperature. The examiner does not agree. Dourmanidis controls the process so that the temperature rise is maintained in a specific range (i.e. 35-50%) and senses the temperature of the materials. The examiner believes this disclosure of Dourmanidis anticipates applicant's claimed limitation of maintaining consistent energy delivery to the bond zone and applicant's argument is believed to be incorrect in this instance.

Applicant argues that energy (or temperature) cannot possibly be "maintained" according to Dourmanidis if it is not considered in the first place. The examiner does not agree. At col. 10, lines 24-31, Dourmanidis discloses that the amount of ultrasonic energy transferred to the parts is proportional to the welding time, amplitude and pressure (i.e. various welding parameters). At col. 10, lines 63-65, Dourmanidis discloses that the control unit (46) controls the ultrasonic welder device to weld the layer to the part. At col. 8, lines 18-24, Dourmanidis discloses that the control unit 46 is a computer equipped to control the operation of the ultrasonic welder. Therefore applicant's argument is believed to be incorrect.

Applicant argues Dourmanidis does not disclose sensing the temperature of the materials. However, it is noted that applicant's claims do not recite any limitations regarding sensing the temperature of the materials. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.

See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Therefore applicant's argument is believed to be irrelevant

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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